

NORTH RIDING OF YORKSHIRE.

Report of the Medical Officer of Health for the year 1908.

To the County Council of the North Riding of Yorkshire.

Mr. Chairman, my Lords, and Gentlemen,

I have the honour of presenting to you my Report on the health and sanitary condition of the Riding for the year 1908.

Dr. Thomson's period of office having expired, he is succeeded in the District of the Reeth Rural Council by Dr. Campbell.

The Riding consists of 17 Urban Districts, with a population at the 1901 Census of 111,475, and estimated at the middle of 1908 to be 133,449, the estimated population at the middle of 1907 was 129,285, giving an increase of 4,164 on the year, against 7,655 from 1906 to 1907, and 21 Rural Districts, with a population at the 1901 Census of 132,583, and estimated at the middle of 1908 to be 133,177, the estimated population at the middle of 1907 was 133,557, giving a decrease of 380 against an increase of 358 from 1906 to 1907. The increase of the whole Riding on the year 1907 is 3,784, against 8,013 increase from the year 1906 to 1907. The area of the Riding is 1,358,101 acres, and the total population estimated at the middle of 1908, 266,626, equal to 0.196 persons per acre.

The Helmsley Rural District is divided into two Districts, making a total of thirty-nine reports for consideration

During the year there were registered 7,361 births, 4,251 Urban, and 3,110 Rural, against 6,866 in 1907, giving an Urban Birth Rate of 31.85 per thousand, and a Rural Birth Rate of 23.35 per thousand, against 30.65 and 21.73 respectively for 1907. There is an increase of 288 Urban and 207 Rural Births on the year 1907, total increase 495.

The Urban Birth Rate is 1.20 higher than the rate for 1907, 0.08 higher than the average for the previous ten years for the County, 3.75 higher than the average for England and Wales for the same period, and 5.35 higher than the rate for England and Wales in 1908.

The Rural Birth Rate is 1.62 higher than the rate for 1907, 0.57 higher than the average for the previous ten years for the County, 4.75 lower than the average for England and Wales for the same period, and 3.15 lower than the rate for England and Wales in 1908.

Of deaths there were registered 3,909, 2,092 Urban and 1,817 Rural, against 3,995 in 1907, giving an Urban Death Rate of 15.67 per thousand, and a Rural Death Rate of 13.64 per thousand, against 16.72 and 13.72 respectively for 1907. There is a decrease of 70 Urban and 16 Rural Deaths on the year 1907, total decrease 86.

The Urban Death Rate is the lowest recorded with the exception of the year 1894 when it was 14.09, it is 1.05 per thousand lower than the rate for 1907, 1.16 lower than the average for the previous ten years for the County, 0.73 lower than the average for England and Wales for the same period, and 0.97 higher than the rate for England and Wales in 1908.

The Rural Death Rate is the lowest recorded, it is 0.08 per thousand lower than the rate for 1907, 0.85 lower than the average for the previous ten years for the County, 2.76 lower than the average for England and Wales for the same period, and 1.06 lower than the rate for England and Wales in 1908.

Of deaths due to the "Chief Epidemic Diseases" there were 344, 254 Urban and 90 Rural, against 315, 223 Urban and 92 Rural in 1907, giving an Urban Death Rate from these diseases of 1.90 per thousand, and a Rural Death Rate of 0.67, against 1.72 and 0.68 respectively in 1907.

The Urban Rate is 0.18 per thousand higher than that for 1907, 0.14 higher than the average for the previous ten years for the County, 0.10 higher than the average for England and Wales for the same period, and 0.64 higher than the rate for England and Wales in 1908.

The Rural Rate is 0.01 per thousand lower than that for 1907, 0.05 lower than the average for the previous ten years for the County, 1.13 lower than the average for England and Wales for the same period, and 0.59 lower than the rate for England and Wales in 1908.

Of deaths due to Phthisis there were 225 against 230 in 1907, giving a Phthisical Death Rate of 0.84 per thousand against 0.87 in 1907.

Of deaths of Infants under one year of age there were 869, against 777 in 1907, giving an Infantile Death Rate of 118.05 per one thousand births registered, against 113.16 in 1907. The rate for England and Wales in 1908 was 121.

Phthisis Death Rate and Infantile Mortality per one thousand Births, 1899-1908.

PHTHISIS DEATH RATE.			INFANTILE MORTALITY.	
1899	...	1·08	153·10	
1900	...	0·87	134·00	
1901	...	0·86	124·60	
1902	...	0·79	112·31	
1903	...	0·88	122·16	
1904	...	0·78	126·91	
1905	...	0·94	116·93	
1906	...	0·91	127·68	
1907	...	0·87	113·16	
1908	...	0·84	118·05	

DEATHS FROM THE CHIEF EPIDEMIC DISEASES.

		Total.		Rate per thousand.	
		Urban.	Rural.	1908.	1907.
Small Pox ...	...	...	...	...	...
Measles ...	...	50	12	62	118
Scarlet Fever ...	...	3	3	6	12
Diphtheria and Membranous Croup	46	24	70	72	...
Whooping Cough ...	...	41	26	67	39
Typhoid Fever ...	...	17	5	22	26
Continued Fever ...	...	...	...	...	...
Diarrhœa ...	...	97	20	117	48
Total ...		254	90	344	315

Table showing the variations in the number of Deaths from the Chief Epidemic Diseases from the year 1907 :—

INCREASE.—Whooping Cough 28, Diarrhœa 69.

DECREASE.—Measles 56, Scarlet Fever 6, Diphtheria and Membranous Croup 2, Typhoid Fever 4.

TABLE OF RATES, 1889-1908.

		Birth Rate.		Death Rate.		Death Rate of Chief Epidemic Diseases.	
		Urban.	Rural.	Urban.	Rural.	Urban.	Rural.
1889.	North Riding	24·88		14·71		0·4	
	England & Wales	30·5		17·9		2·1	
1890.	North Riding	28·37	24·06	15·81	15·31	1·89	0·91
	England & Wales	30·5		19·5		2·17	
1891.	North Riding	37·5	27·21	16·0	17·68	1·63	0·95
	England & Wales	31·4		20·2		1·83	
1892.	North Riding	31·8	25·18	16·50	15·81	1·43	0·77
	England & Wales	30·5		19·0		1·90	
1893.	North Riding	31·01	25·70	16·94	16·93	2·30	1·44
	England & Wales	30·8		19·2		2·47	
1894.	North Riding	28·97	23·89	14·09	14·56	0·89	0·79
	England & Wales	29·6		16·6		1·76	
1895.	North Riding	30·30	25·64	16·09	15·37	2·05	0·83
	England & Wales	30·3		18·7		2·14	
1896.	North Riding	30·65	24·57	15·82	14·19	2·00	0·75
	England & Wales	29·7		17·1		2·18	
1897.	North Riding	30·30	25·00	16·32	14·83	1·77	0·88
	England & Wales	29·7		17·4		2·15	
1898.	North Riding	31·21	23·41	15·86	14·70	1·62	0·61
	England & Wales	29·4		17·6		2·22	
1899.	North Riding	30·31	21·14	17·37	14·82	1·93	1·11
	England & Wales	29·3		18·3		2·21	
1900.	North Riding	31·66	22·25	17·60	15·23	1·78	0·70
	England & Wales	28·9		18·3		2·00	
1901.	North Riding	32·79	23·42	17·02	14·23	1·49	0·97
	England & Wales	28·5		16·9		2·05	
1902.	North Riding	31·92	24·12	15·96	14·06	1·58	0·47
	England & Wales	28·6		16·3		1·64	
1903.	North Riding	32·52	23·02	16·84	13·78	1·66	0·55
	England & Wales	28·4		15·4		1·46	
1904.	North Riding	32·24	22·85	17·07	15·52	1·92	0·90
	England & Wales	27·9		16·2		1·94	
1905.	North Riding	31·85	23·30	16·99	14·69	1·74	0·46
	England & Wales	27·2		15·2		1·52	
1906.	North Riding	32·64	22·63	16·88	14·17	2·21	0·78
	England & Wales	27·0		15·4		1·73	
1907.	North Riding	30·65	21·73	16·72	13·72	1·72	0·68
	England & Wales	26·3		15·0		1·26	
Average 1898-1907—							
	North Riding	31·77	22·78	16·83	14·49	1·76	0·72
	England & Wales	28·1		16·4		1·80	
1908.	North Riding	31·85	23·35	15·67	13·64	1·90	0·67
	England & Wales	26·5		14·7		1·26	

The Birth Rate in England and Wales in 1908 was 26·5 per thousand of the population, which is 0·2 per thousand above the rate in 1907. Compared with the average in the ten years 1898-1907, the Birth Rate in 1908 showed a decrease of 1·6 per thousand.

The Death Rate in 1908 was 14·7 per thousand, which was 0·3 per thousand below the rate in 1907, and lower than the rate in any other year on record. Compared with the average rate in the ten years 1898-1907, the Death Rate in 1908 showed a decrease of 1·7 per thousand.

The Rate of Mortality among Infants under one year of age to one thousand registered births was 121, which is 3 per thousand above the rate of 1907. The rate in 1908 was, with the exception of that recorded in the previous year, lower than in any other year on record. Compared with the average in the ten years 1898-1907, the rate of Infantile Mortality in 1908 showed a decrease of 21 per thousand.

The Death Rate from the Chief Epidemic Diseases was 1·26 per thousand living, against 1·94, 1·52, and 1·73 respectively in the three preceding years.

Number of cases of Notifiable Diseases reported :—

				Total.		Attack rate per thousand.	
		Urban.	Rural.	1908.	1907.	1908.	1907.
Small Pox	...	—	—	—	—	—	—
Scarlet Fever	...	254	164	418	667	1·56	2·53
Diphtheria and Mem- branous Croup	...	231	253	484	572	1·81	2·17
Typhoid Fever	...	116	50	166	139	0·62	0·52
Continued Fever	...	8	—	8	9	0·03	0·03
Erysipelas	...	113	63	176	211	0·66	0·80
Puerperal Fever	...	12	5	17	10	0·06	0·03
Total	...	734	535	1269	1608		

INCREASE.—Typhoid Fever 27, Puerperal Fever 7.

DECREASE.—Scarlet Fever 249, Diphtheria and Membranous Croup 88, Continued Fever 1, Erysipelas 35.

Districts in which the following Epidemic Diseases have occurred.

Measles.	Scarlet Fever.	Diphtheria and Membranous Group.	Typhoid Fever.	Whooping Cough.	Small Pox.
Leyburn Reeth Thirsk Whitby Urban Pickering Urban Malton Urban Guisborough Rural Guisborough Urban Loftus Redcar Saltburn Skelton and Brotton Flaxton Masham Middlesbrough Rural Aysgarth Eston Stokesley Northallerton Urban Ormesby Thornaby-on-Tees Scalby Easingwold South Bank in Normanby Bedale Richmond	Leyburn Thirsk Whitby Urban Pickering Urban Malton Urban Guisborough Rural Guisborough Urban Loftus Redcar Saltburn Skelton and Brotton Northallerton Rural Flaxton Masham Aysgarth Eston Stokesley Malton Rural Wath Northallerton Urban Ormesby Thornaby-on-Tees Scalby Helmsley Helmsley (Oswaldkirk Division) Kirbymoorside Easingwold South Bank in Normanby Scarborough Rural Hinderwell Whitby Rural Bedale Startforth Richmond	Leyburn Reeth Thirsk Whitby Urban Malton Urban Guisborough Rural Guisborough Urban Loftus Redcar Saltburn Skelton and Brotton Northallerton Rural Flaxton Masham Middlesbrough Rural Eston Stokesley Malton Rural Croft Northallerton Urban Ormesby Thornaby-on-Tees Scalby Kirbymoorside Easingwold South Bank in Normanby Whitby Rural Bedale Startforth Richmond	Leyburn Reeth Thirsk Whitby Urban Malton Urban Guisborough Rural Redcar Skelton and Brotton Northallerton Rural Flaxton Masham Aysgarth Eston Stokesley Malton Rural Croft Wath Northallerton Urban Ormesby Thornaby-on-Tees Scalby Easingwold South Bank in Normanby Scarborough Rural Bedale Startforth Richmond	Leyburn Thirsk Whitby Urban Pickering Urban Malton Urban Guisborough Urban Loftus Skelton and Brotton Northallerton Rural Masham Middlesbrough Rural Aysgarth Stokesley Malton Rural Wath Ormesby Thornaby-on-Tees Scalby Easingwold South Bank in Normanby Scarborough Rural Bedale Startforth Richmond	

Whooping Cough and Measles are notified in the Thirsk District.

The following Authorities have not yet made provision for the Isolation of Infectious Diseases :—

URBAN.—Hinderwell, Kirklington and Upland, Malton, Masham, Pickering.

RURAL.—Aysgarth, Easingwold, Helmsley, Kirbymoorside, Leyburn, Malton, Pickering, Reeth, Richmond, Thirsk, Whitby.

SPECIAL REPORTS.

DATE.	MEDICAL OFFICER.	DISTRICT.	SUBJECT.
January 27th	Dr. Cockcroft ...	Leyburn ...	Mumps
February 5th	Dr. Colby ...	Malton Rural ...	Whooping Cough
" 5th	Dr. Colby ...	Malton Rural ...	Scarlet Fever
" 6th	Dr. Eddison ...	Bedale ...	Diphtheria
" 17th	Dr. Buchanan ...	Thirsk ...	Whooping Cough
" 23rd	Dr. Holt ...	Malton Urban ...	Measles
" 25th	Dr. Eddison ...	Bedale ...	Diphtheria, Scarlet Fever
March 2nd	Dr. Hutchinson ...	Northallerton Rural ...	Diphtheria
" 31st	Dr. Jackson ...	Ormesby ...	Measles
April 11th	Dr. Raimes ...	Flaxton ...	Measles
" 18th	Dr. Stainthorpe ...	Guisborough Rural ...	Scarlet Fever
May 11th	Dr. Cockcroft ...	Masham ...	Scarlet Fever
" 13th	Dr. Porter ...	Helmsley ...	Water
" 16th	Dr. Buchanan ...	Thirsk ...	Scarlet Fever
June 3rd	Dr. Watson ...	Thornaby-on-Tees ...	Measles
" 10th	Dr. Williams ...	Richmond ...	Diphtheria
" 17th	Dr. Cockcroft ...	Leyburn ...	Diphtheria
" 20th	Dr. Eddison ...	Bedale ...	Scarlet Fever
July 4th	Dr. Williams ...	Richmond ...	Water
" 6th	Dr. Cockcroft ...	Leyburn ...	Diphtheria
" 23rd	Dr. Cockcroft ...	Leyburn ...	Diphtheria, Typhoid Fever
" 25th	Dr. Baigent ...	Northallerton Urban ...	Scarlet Fever
" 27th	Dr. Cockcroft ...	Leyburn ...	Scarlet Fever
August 14th	Dr. Porter ...	Helmsley ...	Sanitary
" 25th	Dr. Eddison ...	Bedale ...	Diphtheria, Typhoid Fever
October 26th	Dr. Colby ...	Malton Rural ...	Whooping Cough
" 31st	Dr. Jackson ...	Ormesby ...	Typhoid Fever
November 7th	Dr. Colby ...	Malton Rural ...	Whooping Cough
" 10th	Dr. Cockcroft ...	Leyburn ...	Whooping Cough
" 16th	Dr. Holt ...	Malton Urban ...	Whooping Cough
" 28th	Dr. Porter ...	Helmsley ...	Diphtheria, Scarlet Fever
December 5th	Dr. Jackson ...	Ormesby ...	Typhoid Fever
" 5th	Dr. Holt ...	Malton Urban ...	Whooping Cough
" 11th	Dr. Colby ...	Malton Rural ...	Diphtheria
" 11th	Dr. Stainthorpe ...	Skelton and Brotton ...	Diphtheria
" 11th	Dr. Stainthorpe ...	Guisborough Urban ...	Diphtheria

SCARLET FEVER occurred in 35 Districts, 418 cases being reported with 6 deaths. The attack rate per one thousand of the population being 1·81, the death rate per thousand 0·02, and the death rate of persons attacked 1·45 per cent.

One case at Newton in the Leyburn District. Seventeen in the Thirsk District, the first occurred at Skipton, the disease being imported from the West Riding, and spread to Catton, Ainderby Quernhow, and Sinderby, one case also occurred at Thornton-le-Moor contracted in Hartlepool. Twenty cases in the Whitby Urban District, twelve removed to Hospital, Cliff Street School closed, Dr. Tinley, referring to Scarlet Fever and Chicken Pox, writes, "I have received a considerable amount of help from the teachers, and also "from the School Attendance Officer, in connection with these two infectious illnesses. "So far as I know, there is only one objection to the closing of a school for infectious "illnesses, and it is that one loses the help of the teachers and the Attendance Officer. "This is undoubtedly an objection, but I think the advantage of closing in stopping the "disease easily outweighs any advantage that one gains from knowing children who are "suffering from infectious disease, and whose cases are not notified by a doctor." Five in the Pickering Urban District and two in the Malton Urban. Two cases in the Guisborough Rural District, two in the Guisborough Urban, eleven in the Loftus District, twenty-five in the Redcar District, nineteen removed to Hospital, five in the Saltburn District, two removed to Hospital, and forty-one in the Skelton and Brotton District, no deaths. Five cases in the Northallerton Rural District, two being at Romanby and one each at Danby Wiske, Great Smeaton, and Brompton, two of the cases were imported. Five in the Flaxton District, one being at Haxby, one at Wigginton, two at New Earswick, and one in Malton Road, all removed to Hospital. Three in the Masham District, one being in the Leeds Waterworks village, Breary Banks, and treated in the Corporation's Isolation Hospital. Eleven cases in the Aysgarth District, eight, a continuation of the outbreak of the previous year, being at Bainbridge. Twelve in the Eston District, ten removed to Hospital. Two in the Stokesley District, one being at Rounton and one at Crathorne, both removed to Hospital. Eight cases in the Malton Rural District, and one

in the Wath District, removed to Hospital. Eight in the Northallerton Urban District, three removed to Hospital, four of the cases occurred in an isolated farm house, where the sale of milk and butter was suspended. Thirty-eight in the Ormesby District, one death. Forty-one at Thornaby-on-Tees, six removed to Hospital, one death, two houses had each four cases, one three cases, and three two cases. Thirteen in the Scalby District, two removed to Hospital, one death, school closed. Six cases in the Pickering Rural District. Six in the Helmsley District, and eighteen in the Oswaldkirk Division of the Helmsley District, one death, fifteen of the cases were in Ampleforth and its surroundings. Twenty-five in the Kirbymoorside District, one death, three of the cases were reported from Nunnington in January, the source of infection being probably Stonegrave in the Helmsley District, two further cases in this village were notified early in February, during the same month four were notified from Ness, the children from which village attend the Nunnington School, eight cases occurred in two households in Hutton-le-Hole during September and four during December, three were removed to the Isolation Ward in the Workhouse at Kirbymoorside. Eleven cases in the Easingwold District, and sixteen in the South Bank in Normanby District. Twelve in the Scarborough Rural District, ten being at Cloughton, school closed, after which no further cases occurred. Six in the Hinderwell District, and eighteen in the Whitby Rural District, one death. Four in the Bedale District, one being at Crakehall, one at Aiskew, and two in one house at Thirn, imported. Eight in the Startforth District, four removed to Hospital, and four in the Richmond District, one being at Dalton, one at Waitwith, one at Gilling, and one at Sedbury.

TYPHOID FEVER occurred in 28 Districts, 166 cases being reported with 22 deaths. The attack rate per one thousand of the population being 0·62, the death rate per thousand 0·08, and the death rate of persons attacked 13·25 per cent.

There were also 8 cases of Continued Fever notified in the South Bank in Normanby District.

One case in the Leyburn District imported from Bedale, and one due to opening old drains. One case, fatal, in the Reeth District. One in the Thirsk District, and two in the Whitby Urban District, both removed to Hospital. One in the Malton Urban District. Six cases in the Guisborough Rural District, three being in Marske, and one each at Dunsdale, Low Lackenby, and Hutton, those at Dunsdale and Marske were imported. Five in the Redcar District, two being in one house, the first of which was probably imported, another was undoubtedly so, one death, and three cases in the Skelton and Brotton District, one death. Six in the Northallerton Rural District, one imported, one removed to Hospital. Eight in the Flaxton District, one being at Haxby, four in the North Riding County Asylum, Clifton, and three at Holtby, where the well was contaminated by sewage leaking from the main sewer, five removed to Hospital. One case in the Masham District. Five cases in the Aysgarth District, two deaths, three occurred in one house at Askrigg, two in September and one in December, bacteriological examination of the drinking water pointed to its being contaminated. Five in the Eston District, all removed to Hospital, one death. Dr. Fulton writes, "The source of infection was undoubtedly the eating of mussels gathered from the foreshore. This breeding area is exposed to sewage contamination, and such mussels, cockles, and shrimps should not be eaten—at least uncooked, and I earnestly warn the public. The mussels were gathered about two miles east of Grangetown sewer outfall. The first case was reported on the 4th of October by Dr. Steele, the man, Wm. Moore, lived at Grangetown. After eating the mussels (about 20, raw) he was sick the same evening, then was unwell for about ten days and called in his doctor, who ordered his removal to the Eston Sanatorium. It was a typical case. Spots, headache, sleeplessness, with hæmorrhage about the nineteenth day, and this man died. The other case was reported on October 8th by Dr. Townsend. This man lived at Eston (two miles from Grangetown), the mussels were gathered from the same source by a man, Augurs, of Grangetown. The patient, Burton, was also removed to Eston Sanatorium and had a very bad attack of Enteric Fever, but recovered after a long illness. He had raw mussels, the other members of Burton's family had cooked mussels, and although unwell for a few days, the attack passed off. These cases were so typical and undoubted that I had to point out the risks to the public. This matter is being investigated in the interest of the public, and since my report was written other Authorities have verified my remarks about mussels having caused Enteric Fever. (Dr. Bulstrode, Inspector, Local Government Board, will issue a report in a few months.)" One case at Yarm and one at Seamer in the Stokesley District. Dr. Colby, Malton Rural, writes, "Enteric Fever cases number 4, against 1 in 1907, and 3 again were in villages—Thornton-le-Clay and Amotherby—where the water is bad and the drainage not of the best. Thornton is drained, but means of flushing do not exist, yet it is fair to assume that draining has done some good, as Enteric is much less frequent than it used to be. Amotherby you know of, and the annual appearance of this disease is a matter of course, and it will go on until more water—and good water—is provided." Five cases (one fatal) in one house in the Croft District. One case in the Wath District, and three in the Northallerton Urban, two removed to Hospital. Sixty-five in the Ormesby District, thirty-one removed to Hospital, seven deaths, during the latter half of the year a severe outbreak occurred, which has been dealt with by Dr. Jackson in two Special Reports, and which has been investigated by Dr. Johnstone of the Local Government Board. Twenty of the sufferers were in receipt of Poor Law Relief and many others appeared to be in equally poor circumstances through irregular work. The greatest concentration of cases occurred in a block of thirty-three houses surrounding a stable situated between the upper parts of Stephenson Street and Pierson Street, here thirteen cases occurred in nine houses. Dr. Jackson made an exhaustive enquiry into the outbreak, directed towards the water and milk supplies, the consumption of shellfish, uncooked vegetables, bottled beer, fried fish, and ice cream. The water undoubtedly is

pure when delivered, but the question arose as to the contamination on the spot through suction owing to damage to the pipes or connections, tests made negatived this possibility. Many of the earlier cases were obtaining their milk from one farm, but in some instances only after the onset of the illness, and on investigation no evidence was forthcoming to show that this particular farm was at fault, one milk shop was closed owing to an inmate being infected and refusing removal. No proof was forthcoming that the consumption of shellfish, vegetables, bottled beer, fried fish, or ice cream was responsible for the outbreak, although one person was selling ice cream during the first few days of his illness. Many of the houses and yards were dirty, and structural defects, especially with regard to the sanitary conveniences and drains were not uncommon. In the block of buildings surrounding the stable in Back Pierson Street, middens are common, and the tenant of the stable was using one house midden for his manure. The houses in this part were infected with flies undoubtedly contaminating milk and food with midden matter. The drains in this block and in James Street were mostly defective, and the sewers in the severely infected locality were unventilated. Twenty-three cases at Thornaby-on-Tees, three deaths, close-lidded pans are provided for the disposal of excreta. One case in the Scalby District, contracted in London, and one in the Kirbymoorside District. Two in the Easingwold District, and seven (four fatal) in the South Bank in Normanby District, there were also notified eight cases of Continued Fever. One case in the Whitby Rural District, and one at Bedale in the Bedale District. One case (fatal) in the Startforth District, and three in the Richmond District, in two of which the drinking water was found to be unsatisfactory.

DIPHTHERIA AND MEMBRANOUS CROUP occurred in 32 Districts, 484 cases being reported with 70 deaths. The attack rate per one thousand of the population being 1·81, the death rate per thousand 0·26, and the death rate of persons attacked 14·46 per cent.

Eight deaths were registered under the head of "Croup."

Thirteen cases in the Leyburn District, one being in Coverdale, three at Thornton Steward, four at Constable Burton, three at West Witton, and two at Spennithorne, three deaths, Dr. Cockcroft writes, "Till the end of June no case of infectious disease was notified, but with the commencement of hay time and the introduction of casual labourers there were three outbreaks of Diphtheria at Tugill, Thornton Steward, and Constable Burton. At the same time one of these men died in the Masham District of Diphtheria, and a possible chain of infection was found between him and the cases at Thornton Steward." One case, fatal, in the Reeth District. Sixteen cases in the Thirsk District, two deaths, the cases were in widely separated parts of the District, two occurred in one house at Topcliffe, the first child to contract the disease had been playing in a cart containing nightsoil, three in one house at Sowber Hill, the surroundings of which were wet and dirty, five in one house at Kepwick, two of them fatal, there were no insanitary conditions on the premises, but complaint had been made of the smell from the ashpits of the school which the children attended, one at North Otterington, the ashpit adjoining the house was in an unsatisfactory condition, one in Thirsk, one at South Kilvington, and one at Cowesby where a ditch a little distance from the house was in an offensive condition. Five cases in the Whitby Urban District, two of them imported, two removed to Hospital, one death. One case, imported, in the Malton Urban District. Fifty cases in the Guisborough Rural District, five deaths, also one registered as "Croup," twenty-one in the Guisborough Urban, five deaths, one registered as "Croup," thirteen in the Loftus District, two deaths, three registered as "Croup," thirty-five in the Redcar District, no deaths, two in the Saltburn District, and twenty-four in the Skelton and Brotton District, ten deaths. Dr. Stainthorpe writes, "The immediate cause of diphtheria is the inhalation of the specific bacilli. These by their growth and multiplication in the mucous membrane of the throat and air passages give rise to the local symptoms. They produce a poison which being absorbed causes the constitutional symptoms. The bacilli may remain for many weeks in the throat, nose, etc. of the patient after recovery. They are often found in the mouths of "contacts," that is persons who have come into contact with an infected individual. In a large number of cases the "contact" is not injuriously affected thereby. The unaffected "contacts" may act as carriers and so spread the disease. In many cases the local symptoms are so mild as to escape notice, and only when post-diphtheritic paralysis occurs or there follows in the same house an undoubted case is the nature of the illness recognized. As an aid to diagnosis in suspected cases the examination of "swabs" for the presence of the bacilli is frequently resorted to. Exceedingly useful as this is it is not an infallible guide, for that particular "swab" may not contain them. An example of this was recently met with. Notice was received of a death from "Croup." A letter to the medical attendant brought the reply that apparently it was a case of diphtheria, but that a "swab" sent for examination did not reveal the presence of the specific bacilli. Two undoubted cases of diphtheria occurred shortly after in the same house. The number of such instances is so small as to detract little or nothing from the value of the bacteriological examination of swabs." Arrangements have been made for the supply of Anti-toxin free of charge to persons who are unable to pay for the same. Fifteen in the Northallerton Rural District, four being at Brompton, two at Yafforth, two at Osmotherley, and seven in separate villages, serum was supplied for treatment and for prophylaxis also in one household, in February Kepwick and Silton Schools were closed owing to an epidemic at Kepwick in the Thirsk area. Fifteen in the Flaxton District, six removed to Hospital, one death, five occurred at Huntington four being in one house, there was also one death in the North Riding County Asylum, Clifton, and one in the Military Camp, Strensall. One, fatal, in the Masham District, in the person of a man on tramp. Nine cases in the Middlesbrough Rural District, two fatal, three households had two cases each, four were reported from the Parish of Linthorpe, three from Marton, and one each from Stainton, and Thornton. Twenty-five in the

Eston District, sixteen being at Eston, six at Grangetown, and three at South Bank, ten removed to Hospital, six deaths, Dr. Fulton writes, "No sanitary defect was found in the houses where diphtheria occurred, but what struck me as remarkable was the fact that the cases occurred mostly in new houses—if the plaster was bad or not dry, then this would give rise to rheumatic throat, which would prepare the way to render them susceptible to Diphtheria, *i.e.*, the ground was prepared to take the Bacillus." Ten cases in the Stokesley District, six being at Ayton, one at Stokesley, and three at Picton, two deaths. Ten in the Malton Rural District, three deaths, one case occurred at Slingsby, two at Appleton-le-Street, two at Swinton, and five at Whitwell, all children attending the school, which was closed for three weeks. Two cases, one fatal, in the Croft District. Five cases, one fatal, in the Northallerton Urban District. Forty-six cases in the Ormesby District, six removed to Hospital, nine deaths, two deaths were also registered as "Croup." Antitoxin was used for prophylactic purposes with satisfactory results. Thirteen cases at Thornaby-on-Tees, one removed to Hospital, six deaths, one death was also registered as "Croup," anti-diphtheritic serum was supplied for the treatment of the cases. Twenty-four in the Pickering Rural District, all the cases occurred in the village of Sinnington, where the disease was undoubtedly spread by the attendance of an infected child at school, the school was closed. Ten in the Helmsley District, six being at Harome, one death. Twenty-one cases in the Kirbymoorside District, twenty being in the Kirbymoorside Township. Two in the Easingwold District. Forty in the South Bank in Normanby District, five deaths, nearly two-thirds of the cases occurred during the last quarter of the year, the majority being in the South Bank division of the district, Dr. Glen writes, "It is rather peculiar that the majority of the cases of diphtheria in South Bank have occurred in new or comparatively new houses. and the old portion of the town has been almost totally exempt. There is no doubt that some of the back streets adjoining some of the new property were in a most insanitary condition, as well as hardly in a condition to be walked in with safety." One case in the Scarborough Rural District, and six in the Whitby Rural, one death. Forty in the Bedale District, two deaths, eighteen occurred in ten houses at Leeming Bar, sixteen in ten houses at Leeming, two at Hackforth, two at Fencote, one at Aiskew, and one at Bedale. Dr. Eddison writes, "The disinfection of a small house containing a large family is a matter of great difficulty. Before isolation the patient has probably used all the rooms, and without turning the family into the street it is impossible to disinfect the whole house. Also the period of infectivity of diphtheria is very variable, but I think the district may now be considered to have come to the end of the outbreak which has lasted since the end of 1906." One case in the Startforth District, and seven in the Richmond District, one being at Hipswell, two in one house at Gilling, one at Marske, and three in one house at North Cowton.

MEASLES were reported from 24 Districts, the number of deaths being 62, giving a death rate 0.23 per thousand.

A few cases in the Leyburn District, and the Reeth District. Five in the Thirsk District, and one death in the Whitby Urban District. One death in the Malton Urban District, Wentworth Street Infants' school closed fourteen days. Two in the Guisborough Rural District, one in the Guisborough Urban, one in the Loftus, school closed, three in the Redcar, and nine in the Skelton and Brotton District. An outbreak at Ellingstring in the Masham District. Epidemic in the Acklam Parish in the Middlesbrough Rural District, all the cases occurred in families who had children attending a private school at Middlesbrough, two deaths. Prevalent in the Aysgarth District, schools closed at Lunds, Hawes, and Askrigg. Four deaths in the Eston District. Four deaths in the Stokesley District, schools closed at Yarm and Nunthorpe. One in the Northallerton Urban District. Epidemic at North Ormesby, Cargo Fleet, and Ormesby village—school closed—in the Ormesby District, eight deaths. Sixteen deaths at Thornaby-on-Tees. A few cases in the Scalby District, and one death in the Easingwold District. Five deaths in the South Bank in Normanby District. Prevalent at Leeming, Leeming Bar, and West Tanfield in the Bedale District, two deaths. A few cases in the Richmond District.

WHOOPIING COUGH was reported from 24 Districts, the number of deaths being 67, giving a death rate of 0.25 per thousand.

Epidemic during November and December at Middleham and Horsehouses in the Leyburn District, schools closed, two deaths. One hundred and fourteen cases in the Thirsk District, ten deaths, schools closed at Knayton, Kirby Knowle, Boltby and Felixkirk. Three deaths in the Whitby Urban District, three in the Pickering Urban, and one in the Malton Urban, Wentworth Street Infants' school closed five weeks. One in the Guisborough Urban District, one in the Loftus, and four in the Skelton and Brotton District. One in the Northallerton Rural District. Prevalent at Fairthorne, Moorheads, Breary Banks, Masham, and Ilton in the Masham District, one death. A few cases at Marton in the Middlesbrough Rural District. Prevalent at Lunds in the Aysgarth District, school closed, one death. Two deaths in the Stokesley District. Dr. Colby, Malton Rural, writes, "Whooping Cough is the other Zymotic Disease which has invaded us, and very freely, in fact, there has been no such epidemic of anything except Influenza for 20 years. It is responsible apparently for one death, yet the prevailing type was unusually mild." Prevalent at Rainton in the Wath District, school closed, and Dishforth, school closed. Eight deaths in the Ormesby District, and eight at Thornaby-on-Tees. A few cases in the Scalby District, and four deaths in the Pickering Rural District. One death in the Easingwold District, and eleven in the South Bank in Normanby District. Prevalent, but not severely in the Scarborough Rural District, also in the Bedale District. Three deaths in the Startforth District. Prevalent in the Richmond District especially at Melsonby and Tunstall, the latter school closed three weeks.

DIARRHŒA caused 117 deaths, giving a rate of 0·43 per thousand.

Two outbreaks of epidemic diarrhœa at Redmire in the Leyburn District, one death. One death in the Thirsk District, one in the Whitby Urban District, and one in Malton Urban. Four in the Guisborough Rural District, four in the Guisborough Urban, two in the Loftus, seven in the Redcar, and fourteen in the Skelton and Brotton District. One in the Northallerton Rural District, two in the Flaxton District, one in the Masham District, and one in the Middlesbrough Rural District. Two in the Aysgarth District, four in the Eston District, three in the Stokesley District, and one in the Malton Rural. Twenty-seven deaths in the Ormesby District, Dr. Jackson writes, "This disease usually appears as an acute epidemic during August and September, during a hot summer. This year it commenced early and prevailed throughout the summer and autumn. although about half the fatal cases were recorded in August. There is a growing belief that flies are the chief carriers of this disease and it is a significant fact that flies were numerous even as late as December." Twenty-four deaths at Thornaby-on-Tees. One in the Pickering Rural District, and eleven in the South Bank in Normanby District. One in the Scarborough Rural District, one in the Hinderwell District, one in the Bedale District, and one in the Richmond District.

WATER SUPPLIES.

In the Leyburn District, the scheme for the supply of Bellerby is completed, that for Hunton is in abeyance owing to the difficulty of ascertaining the views of the owner of the spring required, that for Finghall is also not yet obtained, but a supply is to be provided for the upper part of the village of West Witton, there is a private scheme for the supply of Melmerby. A reservoir is being constructed and will soon be completed for the supply of Sutton-under-Whitstonecliffe in the Thirsk District. At Dunsdale in the Guisborough Rural District the supply sometimes fails, that at Castleton has been augmented, and at Redcar owing to the large increase in the number of houses erected of late in the Redcar Ward it is proposed to enlarge the reservoir and lay down filter beds. In the Northallerton Rural District the supply to Brompton during several weeks in summer was cut off at night, and occasionally for a few hours during the day, several houses are without wholesome water, three samples examined were unfit for domestic use, a shortage is reported at Osmotherley, a scheme is being undertaken by voluntary effort at Nether Silton, but is delayed owing apparently to one of the largest landowners having withdrawn his support, in a dry season there is a shortage at East Harlsey, East Cowton, Appleton Wiske, and Rounton, at East Cowton a well was sunk but during the summer the supply failed. In the Flaxton District eighteen samples of water have been analysed, only one of which was found to be free from contamination. Dr. Hime, Aysgarth, writes, "No further notice appears to have been taken of my urgent appeal to the Board, to provide the villages of Thoraby and Newbiggin with a water supply. It is now quite eighteen months since a Local Government Board Inquiry was held, and from that day to this practically nothing has been done to further the scheme. I trust that the objections of the Riparian owners may be overcome, and the work begun in the near future. Nappa Scarr also is badly off, but there they have plenty of water, though it is polluted by cattle. This can be remedied at small cost. . . . I regret to say that on examination, the Askrigg water was found to contain large numbers of bacteria common to sewage, and therefore pointing to contamination. The supply is obtained from a spring issuing from under a limestone scarp, on the top of which, are large farm buildings, a farm house, and meadow land, heavily manured in the spring of the year. As this limestone is full of "faults," it is quite easy to understand how the water supply becomes contaminated. The only remedies I can suggest, are either to provide proper filtering beds, or to obtain a fresh supply, and I think that one or the other of these plans should be adopted without delay. A new storage tank has been built for Burtersett, and this supply is now a good one." Dr. Yeoman, Stokesley, writes, "Ingleby Greenhow is now supplied from the storage reservoir formed by Lord De L'Isle, the water being collected from the upper springs of the Cleveland Hills. It is good in quality, and an arrangement has been made to supply a house that is being built in the Broughton parish. It would be a good arrangement if the whole of Broughton could be supplied from it, and later on, Stokesley." In Bilsdale steps should be taken to prevent the pollution of the water. In the Wath District the reservoir at Marton-le-Moor has been partly covered in, a new supply has been provided for property at Middleton Quernhow, and a new well sunk on the Trinity College property at Middleton Quernhow. At Northallerton the supply was cut off at night during certain periods, a Bill has been deposited in Parliament for the provision of an additional reservoir. In the Scalby District the supply caused some anxiety, the greatest care and economy being necessary to supply the growing village with a constant supply. In the Pickering Rural District the supply at Lockton is dependent on the rainfall caught in cisterns, the same condition applies at Newton, satisfactory supplies are required at Wilton, Middleton, Wrelton, and Aislaby. At Sinnington the public supply is from one pump at the North End of the village, and this a surface well, the south side of the village is badly supplied, the inhabitants having either to use water from the stream or fetch it from the pump at the North End. as only a few have wells on their own premises. In the Helmsley District a scheme has been completed for the supply of Pockley, Harome, and Beadlam, and other villages in the Kirbymoorside District, the source is the Piethorn spring yielding 66,000 gallons a day, the length of main from source to reservoir is 5,420 yards, provided with six syphons, the reservoir has a holding capacity of 30,000 gallons. The water during a hard frost in the pillar fountains at Harome and Beadlam becomes frozen. Dr. Porter writes, "The defects of the whole scheme are in the old reservoir (Nawton) which leaks equivalent to

"43,000 gallons in 24 hours. Moreover the water being carried through the old Beadlam Mains and branches has caused a great leakage, to such an extent that the places at the altitude of Nawton Tower have been deprived of water for days. . . . These faulty joints that allow the water inside to pass out will also allow the contaminations outside to pass in and thus pollute a pure water supply." Unsatisfactory supplies are reported from Old Byland, Cold Kirby, Murton, and Sproxton, which last was specially reported on during the year. In the Oswaldkirk Division of the Helmsley District the wells at Oswaldkirk are contaminable and in some cases contaminated, there is a water scheme but it gives out occasionally, there is no public supply at Cawton, a supply is required at Coulton and Oldstead. In the Kirbymoorside District the supply jointly provided with the Helmsley Council has been laid on to the villages of Nawton, Skiplam, and Wombledon, Kirbymoorside is to be provided with a second reservoir which will double the storage, but Kirby Mills is still dependent upon the polluted waters of the river Dove for its supply. Dr. Tetley writes, "Again I strongly urge that the Kirbymoorside water be supplied to this part of the town from the mains which already pass through, and that the work be completed before the summer of 1909." The supply at South Bank in Normanby was not satisfactory during the greater part of the year, complaints were made of want of pressure, in the later months this was remedied by connecting another main. In the Scarborough Rural District the supply to Snainton is still unsatisfactory. In the Hinderwell District the quantity was limited and the quality very poor. In the Whitby Rural District many places during the autumn suffered severely from the prolonged drought, and several public supplies either failed or yielded a very much diminished supply, Ugthorpe is in need of a much better supply than is available at present. Dr. Eddison, Bedale, writes, "I am glad to be able to report that considerable steps have been taken towards getting a water supply for Bedale and Aiskew. The water from the proposed supply has been analysed by the County Analyst, who states that it is quite suitable for drinking purposes and rather hard. If the quantity is sufficient, the cost is small for the benefit to be obtained by Bedale and Aiskew. The small cost is chiefly due to its nearness to Bedale and to the small rent charged by the owner of the land. There are several villages outside Bedale that are much in need of water. Leeming and Thornton Watlass are very badly supplied. The supply in Burrill is only partial." In the Richmond District the reservoir at Hudswell has been improved and a new filter bed constructed, but Dr. Williams thinks it will be necessary to carry the pipes to the spring, most of the inhabitants of Newsham are still without water, fit for dietetic purposes, within reasonable distances, the supply at Melsonby is far from satisfactory, in a drouthy season the upper part of Middleton Tyas suffers a shortage.

SANITARY WORK.

In the Leyburn District plans for an Isolation Hospital have been submitted to the Local Government Board, at Middleham the Churchyard has been drained, the drainage of West Witton requires attention, Dr. Cockcroft writes, "During the year I have visited every portion of the district and your Inspector and I am now working each village in turn, The streets of Middleham and Leyburn require scavenging at regular intervals to prevent nuisance from dust and excrement. The Middleham Parish Council are applying for powers to do this, and I hope Leyburn will follow their lead." In the Thirsk District the provision of settling tanks has greatly improved the effluent from the sewers, 166 yards of sanitary pipes have been laid and a settling tank constructed at South Otterington, 66 yards and settling tank at Maunby, 96 yards and flushing tank at Sandhutton, tank with slag filter at the east end of Carlton Miniott, the water courses of the last two named villages have been cleaned out twice during the year, 264 yards and tank with slag filter at Newby Wiske, and a person engaged to give his whole time to the supervision of the works at Thornton-le-Moor. The ditch at the east end of Carlton Miniott is polluted by sewage and requires attention. A site has been purchased for the erection of an Isolation Hospital. In the Whitby Urban District three houses in Wear's Yard were closed as being unfit for habitation, two stacks of property in Old Post Office Yard were condemned and have been left to fall into decay, two houses in Bolton's Buildings were condemned, a cellar dwelling in Henrietta Street closed, houses in Blacksmith Arms Yard condemned, one in Craven's Yard, a stack of property in Kiln Yard, one house in Mr. Clachlin's Yard, one in Elbow Yard, and four tenements in New Way Ghaut. Work has been commenced on the improved sewage disposal in the Harbour. In the Malton Urban District there is a want of suitable houses for the working classes. In the Guisborough Rural District twelve new houses have been erected, forty-one in the Guisborough Urban District, thirty-four in the Loftus District, a sewer is now being laid to take the sewage direct to the sea, one hundred and seventeen in the Redcar District, fourteen in the Saltburn District, and thirty in the Skelton and Brotton District. With reference to Isolation Hospital accommodation Dr. Stainthorpe writes, "The cottage in Redcar is utterly inadequate for the needs of the district. The accommodation is limited and only one form of infectious disease can be isolated at one and the same time. In fact for years past it has been used for scarlet fever only. Between two and three years ago an attempt was made to provide a Joint Hospital for the Urban Districts of Redcar and Saltburn and the parishes of Marske, Kirkleatham, Wilton, and Upleatham in the Guisbro' Rural District. A Joint Committee was appointed to consider the scheme. A suitable site was obtained (conditionally). Plans were prepared by a firm of Architects. The Committee submitted their scheme to the respective Councils. Saltburn Council declined to join. This led to a withdrawal of the offer of the site. Had the offer remained open it is possible that a Hospital for Redcar and the parishes above named might have been provided. Saltburn and Marske, both seaside resorts, are unprovided with means for isolating cases of infectious disease other than small pox. The isolation accommodation in Redcar, another seaside resort with a population

“(permanent) of nearly 12 000, is, as before stated, utterly inadequate.” In the Northallerton Rural District, 110 yards of 18in. sanitary pipes, one ventilating shaft and two surface water grates have been completed at Yafforth, 50 yards of 9in. sanitary pipes, one interception tank and one inspection chamber at Morton-on-Swale in order to carry the outfall further from the village, an extension of the present sewer at Nether Silton is in progress, and a proposal to replace the present defective sewer at Great Smeaton has been approved. Speaking of Romanby, Dr. Hutchinson writes, “Failure of the present Willow Garth is no doubt largely due to the trade effluent turned into your sewers by the milk factory, the effect of which has been to render the land sick and to kill off vegetation. Coke filters which were required by your Council when plans for this factory were approved, appear to have been found more or less troublesome to maintain in efficient order, and have been discontinued The coke filters are to be replaced and efficiently maintained at the factory, and will, no doubt, considerably relieve the overworked Garth. The Council recognise, however, that something more must be done in order to obviate pollution of the beck by Romanby sewage, and negotiations for the purchase of additional land with a view to further extend the present Garth were entered upon, but the cost of this appears to be considerable, and the possibility of simple extension of the present system proving a satisfactory and permanent solution of the difficulty is so questionable that the Council is now considering alternative schemes.” Faulty sewers are reported at Brompton, Welbury, Great Smeaton, and Borrowby, at Ainderby Steeple part of the village is unprovided with a sewer, the outfalls at East Harlsey and Yafforth give rise to serious nuisance in summer time, contamination of the Wiske by Osmotherley sewage is increasing and has given rise to complaints of nuisance by residents and stock owners immediately below. An Isolation Hospital of wood and iron with ten beds is to be erected, a common water main and sewer to Northallerton is to be provided jointly with the Urban Authority who are placing a hospital on a site adjoining. In the Flaxton District a sewerage and sewage disposal scheme has been prepared for Strensall and will shortly be submitted to the Local Government Board. In the Aysgarth District, a sewerage scheme has been completed at Appersett, the sewage being treated in a septic tank and the effluent filtered, a sewer in Back Lane, Hawes, relaid, houses in Lancaster Terrace, Hawes, which previously drained on to the road, connected with the main sewer, and a separate tank is to be provided for the upper part of Askrigg to deal with the sewage. A drainage scheme is recommended for West Burton, where a dozen or more water closets empty into an old stone drain, the sewage from which is discharged untreated into the beck. A site has been acquired for the erection of an Isolation Hospital of eight beds. In the Eston District the sewage of fifty houses which previously discharged into a stream has been carried into the main sewer. In the Stokesley District old drains have been replaced by sanitary pipes at the East End of Stokesley, Station Road, the Old Hall, Great Ayton, and the north side extension of the sewer at Hutton, at Great Ayton the sewer has been extended. In the Croft District the new sewer at Manfield is completed, a ventilating shaft fixed at the head of the sewer at Croft, and the drain at a house, in which five cases of Typhoid Fever occurred, at Breakhouse Bank taken up, renewed, and a settling tank with filter put in. In the Wath District at Cundall 200 yards of 6in. sanitary pipes have been laid and the tank cleaned out, at Dishforth, in place of the old sewer which had its outfall in a field quite close to the village, a new sanitary sewer has been laid to a tank 600 yards from the village. At Northallerton plans have been submitted to the Local Government Board for the construction of new sewage disposal works, but delay has occurred owing to the proposed outfall sewer gradient not meeting the requirements of the Board. During the year 250 loads of sludge have been removed from the present precipitation tanks, and to this extent the beck has been freed from pollution. A site of two acres has been purchased for the erection of a new Isolation Hospital. Dr. Jackson, Ormesby, writes, “On account of the increasing population the Council has found it necessary to adopt a new sewerage scheme to supplement and improve the existing system. The sewerage is passed into settling tanks and thence by means of a beck into the estuary of the Tees. Mussels and other shellfish are liable to pollution by the sewerage from the various districts bordering on the river The scavenging has not been performed with the regularity and frequency that is to be desired, viz:—twice a week for pans and monthly for ashpits. The Council therefore have again taken over the work with an increased staff, with every prospect of reasonable efficiency A nuisance which Sanitary Authorities might make some attempt to remedy is the plague of flies. Flies are said to be Nature’s scavengers, but their chief rôle appears to be the transferring of filth from middens, etc., to milk and other food stuffs, with the result that Diarrhoea, Typhoid Fever, and similar diseases are very common when flies are abundant. Their breeding place is usually in dirt, refuse, and especially in stable manure. Hence the necessity for cleanliness in and about houses, frequent scavenging, and the doing away with middens. The lids of pan closets should not be left open, as they frequently are at present. The Council could with great advantage to the health of the community undertake the frequent removal of stable manure, especially in summer time.” Dr. Watson, Thornaby-on-Tees, writes, “The streets in the Borough are either macadamised or scoria-brick paved, both back and front. This latter paving gives help to the cleansing, and in summer, heat to the air and noise to the ears. In dry weather it is cleanly, in wet, it helps the flushing of the drains, in frosty, it is slippery, in hot, it increases the heat of the air in the streets—its greatest drawback.” Dr. Watson urges the provision of a disinfecter and destructor. In the Scalby District a tip for refuse has been secured on the Burniston Road, and the Pigstyes in Peasholme Road, so long a source of complaint, no longer are occupied. In the Pickering Rural District a length of new sanitary pipes has been laid from new houses in West Street, Thornton-le-Dale,

and a new sewer constructed at Ebberston, at Rosedale East and West some of the houses occupied by the miners are in a dilapidated condition. Dr. Scott writes, "Another year has gone over and we are still without any Isolation Hospital or any proper means of carrying out disinfection. I can only repeat my statement of previous years, that it is almost impossible to deal satisfactorily with an outbreak of infectious illness without either means of isolation or disinfection. This was fully exemplified in the recent outbreak of diphtheria which occurred at Sinnington. Had we been able to deal effectively with the first cases the illness would never have reached the extent that it did." In the Helmsley District the drainage of Harome is reported to be extremely bad, Dr. Porter writing of Helmsley says, "The drainage scheme appears to do its good work, and the house drains now are in much better order, as they are fitted with properly trapped gullies. The sewage tanks and land are very bad, especially the latter, which is sewage sick." In the Oswaldkirk Division of the Helmsley District, a drainage scheme is recommended for Ampleforth, the sanitary condition of Stonegrave is now reported by Dr. Porter to be satisfactory, although he would have preferred the provision of a small drainage scheme as advised by Mr. Huddart of the Local Government Board. In the Kirbymoorside District a sewer has been laid to houses on the south of West End Street, Dr. Tetley recommends that a section be undertaken each half year until the whole town is efficiently sewered. Dr. Hicks, Easingwold, writes, "In Easingwold two-thirds of the sewerage has been completed, and I suppose this year (1909) another section will probably be done. Raskelf has been sewered, Brafferton also, as also Coxwold and Farlington. With regard to the rest of the district, with the exception of some piecemeal drainage from time to time, it is practically in the same condition as it was at the time Dr. Barry made his report, and indeed as it was at the time of the passing of the Public Health Act." Three houses were condemned as unfit for habitation. Dr. Glen, South Bank in Normanby, draws attention to the want of an Isolation Hospital in the district, at present the Middlesbrough Sanatorium is used, also to the danger of consuming uncooked shellfish gathered from certain parts of the Tees, steps are being taken to indicate these dangerous places. In the Scarborough Rural District 328 yards of 9 inch pipes and 30 yards of 4 inch pipes have been laid at West Ayton, and 90 yards of 9 inch pipes at Cloughton. Dr. Laverick, Hinderwell, writes, "Mr. Fairbank, of York, visited and inspected the district and prepared plans of a scheme or schemes for a fairly complete sewerage of the district, and I very much regret that the Council gave this report so short consideration. The difficulties are mainly financial, and in a widely spread district like this, with a low rateable value, the question of finance is always bound to be difficult. I must however point out once more that the sewage from Hinderwell seriously pollutes a stream, the sewage at Runswick Bank Top causes a nuisance in a roadside gutter. At Runswick there are two serious nuisances on the beach caused by the discharge of sewage, and finally at Staithes the whole of the sewage is discharged quite near the houses or public roads, and is altogether most unsatisfactory." Dr. Farrar, of the Local Government Board, visited the Whitby Rural District in 1907 and 1908, and as a result sewerage and sewage disposal schemes are recommended at Eastrow, Robin Hood's Bay, Sleights, and Grosmont. Writing on the provision of an Isolation Hospital for the District, Dr. Laverick says this is becoming imperative.

PULMONARY TUBERCULOSIS.

Regulations issued by the Local Government Board, 18th December, 1908, and which regulations came into force 1st January, 1909, require the following information to be delivered:—

1. The Medical Officer of a Poor Law Institution within forty-eight hours of admission of a person suffering from Pulmonary Tuberculosis, the name and previous address of the person to the Medical Officer of Health of the District from which the said person was removed.
2. The same from the District Medical Officer (Poor Law) to the Medical Officer of Health of the District in which a case is being attended on account of the Guardians.
3. The Superintending Officer of a Poor Law Institution to the Medical Officer of Health of a District into which a person has removed from the Institution.
4. Relieving Officers to the Medical Officer of Health on the change of residence of a person suffering from Pulmonary Tuberculosis.

SPECIAL REPORTS.

April 1st—On the National Conference on Infantile Mortality held at Westminster, 24th and 25th of March.

May 7th—On the Costa Beck, Pickering.

MIDWIVES ACT, 1902.

During the year the names of 78 midwives were placed on the roll against 76 in 1907, eight of whom registered for the first time.

During 1907 of the number registered six ceased to practise.

During 1908 the following ceased to practise in the County:—

January 1st—Margaret Goss, No. 16954, 7, Longwestage, Scarborough, left the district.

January 9th—Cornelia M. Cave-Bourne-Cave, No. 1122, Stillington left the County.

March 1st—Ellen Mary Hall, No. 15508, 1, York Square, Richmond, ceases to practise.

June 20th—Sarah Cryer, No. 10291, 5, Dixon Street, Carlin How, dead.

June 24th—Elizabeth Ann Worn, No. 1929, 19, Tees St., North Ormesby, dead.

August 8th—Julia Ellen Loyd, No. 1673, Wykeham, left the County.

RECORDS RECEIVED.

Puerperal Septicæmia 1, Puerperal Fever 1, Pyrexia 4, Difficult Delivery, Medical Aid 4, Retained Placenta, Medical Aid 1, Placenta Prævia, Medical Aid 1, Medical Aid 2, Hæmorrhage 2, Illness of child 1, Death of child 1, Premature Birth 7, Still Birth 21.

On January 15th, Clara Bailey, number 9846, 14, Portland Street, York, appeared before the Local Supervising Authority to answer a complaint of Malpraxis at Huntington, the Authority decided that a *prima facie* case had not been made out, and therefore did not order her to be reported to the Central Midwives Board.

On January 4th, Sarah Hogg, number 20613, of 75, Westgate, Guisborough, was suspended from practice for fourteen days on account of a case of Puerperal Fever.

On December 29th, Sarah Ann Robinson, number 12973, of 1, Eldon St., Thornaby-on-Tees was suspended from practice for three weeks on account of a case of Puerperal Fever.

During the year one hundred and twenty visits of inspection were made. The midwives now quite appreciate the necessity of cleanliness in their own persons and their appliances. The registers are well kept, but I have still some difficulty in making the more elderly Midwives understand the necessity of sending in "records." Eleven hundred and forty-two cases were attended, one midwife at North Ormesby attended 94, one at Scarborough 75, one at Grangetown 68, one at Thornaby-on-Tees 67, one at Redcar 60, and one at Thornaby-on-Tees 60.

Notices of removals, suspension, and copies of all reports to the Local Supervising Authority are sent to the Central Midwives Board. Copies of the official roll were sent to the Local Supervising Authority and the Central Midwives Board on January 1st, 1909.

I have the honour to be,

My Lords and Gentlemen,

Your obedient Servant,

W. H. CHEETHAM, M.D., D.P.H.

Guisley, 30th March, 1909.

APPENDIX.
NORTH RIDING OF YORKSHIRE.

URBAN AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages		Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1000 Births.	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox.	Enteric Fever.	Other or doubt- ful Fevers.	Diarrhoea.	Cholera.	Group.	Erysipelas.	Puerperal Fever	Isolation Hospital.	Scarlet Fever.	Diphtheria and Membranous Croup.	Typhoid Fever.	Continued Fever.	Erysipelas.	Puerperal Fever	Small Pox.	
	Census, 1901.	Estimated to middle of 1908.																									
Eston (2,252) G. C. H. Fulton, M.D.	11,199	13,422	29.87	12.61	1.11	112.2	4	..	6	1	..	4	Yes	12	25	5	..	14
Guisborough (6,120) W. W. Stainthorpe, M.D., D.P.H.	5,645	6,300	39.36	19.04	1.74	153.2	1	..	5	1	..	..	..	4	..	1	2	Yes	2	21	..	..	12	2	..	..
Hinderwell (1,600) J. B. Laverick, M.D., D.P.H.	1,957	2,350	28.93	12.34	0.42	88.0	..	..	..	..	..	..	..	1	..	..	..	No	6	..	..	..	..	..	..	..
Kirklington and Upsland (2,000) ... T. Sayer, M.R.C.S., L.R.C.P.	250	250	24.00	16.00	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..	No	..	..	..	..	1	..	..	..
Loftus (2,658) W. W. Stainthorpe, M.D., D.P.H.	6,508	7,650	40.39	13.59	0.78	90.6	1	..	2	1	..	..	..	2	..	3	2	Yes	11	13	..	..	11	2	..	..
Malton (4,130) H. M. Holt, M.R.C.S., D.P.H.	4,758	4,758	20.80	10.50	0.63	121.2	1	..	..	1	..	..	..	1	..	..	1	No	2	1	1	1	..	3	1	..
Masham (16,758) H. M. Cockcroft, M.R.C.S., L.R.C.P.	1,955	1,955	31.20	21.48	1.53	116.3	..	..	1	1	..	..	..	1	..	..	..	No	3	1	1	1	..	1	..	..
Northallerton (3,367) W. Baigent, M.D.	4,009	4,181	27.02	13.63	0.46	106.1	1	..	1	..	..	..	..	..	..	..	..	Yes	8	5	3	..	..	..	..	..
Ormesby (4,403) H. W. Jackson, M.D., D.P.H.	9,482	14,650	38.77	20.75	4.09	174.0	8	1	9	8	..	7	..	27	..	2	..	Yes	38	46	65	..	6	1	..	..

Follicular Tonsillitis,
school closed
Influenza, 1 death
Mumps, school closed
Isolation Hospital at
Breary Banks for
employees of the
Leeds Corporation

Influenza, 3 deaths

Influenza, 1 death

URBAN AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages		Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1000 Births.	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox.	Enteric Fever.	Other or doubt- ful Fevers.	Diarrhoea.	Cholera.	Croup.	Erysipelas.	Puerperal Fever	Isolation Hospital.	Scarlet Fever.	Diphtheria and Membranous Croup	Typhoid Fever.	Continued Fever	Erysipelas.	Puerperal Fever	Small Pox.	
	Census, 1901.	Estimated to middle of 1908.																									
Pickering (14,280) D. W. Robertson, M.R.C.S., L.R.C.P.	8,491	8,480	24.71	15.22	0.86	162.7	...	...	...	3	...	...	...	...	...	...	...	...	No	5	...	...	...	2	...	..
Redcar (1,630) W. W. Stainthorpe, M.D., D.P.H.	7,695	11,750	25.19	11.91	0.93	148.6	3	...	...	...	...	1	...	7	...	...	...	...	Yes	25	35	5	...	2	...	...
Saltburn (600) W. W. Stainthorpe, M.D., D.P.H.	2,578	3,700	19.18	10.81	0.00	70.4	...	...	...	...	...	...	...	...	...	...	...	...	Yes	5	2	...	...	...	...	...
Scalby (3,333) B. G. Forman, M.B.	1,262	1,395	17.92	8.60	0.71	120.0	...	1	...	...	...	...	...	...	...	...	...	1	Yes	13	...	1	...	1	...	Mumps	
Skelton and Brotton (16,699) W. W. Stainthorpe, M.D., D.P.H.	13,240	14,400	34.72	16.31	2.63	112.0	9	...	10	4	...	1	...	14	...	...	...	...	Yes	41	24	3	...	22	...	...
South Bank in Normanby (1,781) J. Glen, M.B.	9,645	13,460	36.78	17.68	2.67	175.0	5	...	5	11	...	4	...	11	...	...	...	...	Yes	16	40	7	8	12	...	...
Thornaby-on-Tees (1,993) T. Watson, M.D.	16,053	18,000	34.94	17.11	3.22	146.2	16	1	6	8	...	3	...	24	...	1	...	...	Yes	41	13	23	...	16	3	...	Ifuenza, 2 deaths
Whitby (2,009) W. E. F. Tinley, M.D.	11,748	11,748	23.49	16.00	0.51	108.8	1	...	1	3	...	...	...	1	...	...	...	Yes	26	5	2	...	10	2	...	Chicken Pox, school closed	

RURAL AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages.		Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1,000 Births.	Measles.	Scarlet Fever	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox	Enteric Fever.	Other or doubtful Fevers	Diarrhoea.	Cholera.	Croup.	Erysipelas.	Puerperal Fever	Isolation Hospital	Scarlet Fever	Diphtheria and Membranous Croup.	Typhoid Fever.	Continued Fever.	Erysipelas.	Puerperal Fever	Small Pox.	
	Census, 1901.	Estimated to middle of 1908.																									
Aysgarth (51,012) E. M. Hime, M.B., CH.B.	4,505	4,506	20·46	14·86	1·10	64·5	...	...	...	1	...	2	...	2	...	...	...	...	No	11	...	5	...	2	...	...	Influenza, 3 deaths
Bedale (40,530) F. R. Eddison, M.R.C.S., L.R.C.P.	6,794	6,794	25·46	13·54	0·73	80·9	2	...	2	...	...	...	1	1	...	...	...	1	Yes	4	40	1	...	1	1	...	Influenza, 1 death
Croft (19,844) B. W. Swenden, M.R.C.S., L.R.C.P.	2,107	2,107	21·35	12·81	0·98	133·0	...	...	1	...	...	1	...	...	...	...	...	...	Yes	...	2	5	...	1	...	...	Influenza, 1 death
Easingwold (70,208) E. B. Hicks, M.R.C.S., L.R.C.P.	9,909	9,800	26·22	14·08	0·20	85·6	1	...	...	1	...	...	...	...	...	...	1	...	No	11	2	2	...	2	...	...	Influenza, 4 deaths
Flaxton (30,309) A. Raimes, M.D.	6,924	6,924	22·38	9·53	0·57	84·0	1	...	1	...	...	...	...	2	...	...	...	1	Yes	5	15	8	...	7	2	...	Influenza, 2 deaths
Guisborough (50,754) W. W. Stainthorpe, M.D., D.P.H.	7,754	7,900	30·00	18·22	1·39	126·5	2	...	5	...	...	...	...	4	...	1	1	...	Yes	2	50	6	...	6	...	...
Helmsley (51,598) J. F. Porter, M.D.	3,391	3,391	19·46	14·45	0·29	45·5	...	...	1	...	...	...	...	...	...	...	...	...	No	6	10	...	...	1	...	...
Helmsley (16,043) (Oswaldkirk District) J. F. Porter, M.D.	1,785	1,785	20·16	10·64	0·56	27·8	...	1	...	...	...	...	...	...	...	...	...	...	No	18	...	...	...	...	...	...

RURAL AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages		Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1000 Births.	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox.	Enteric Fever.	Other or doubt- ful Fevers.	Cholera.	Croup.	Erysipelas.	Puerperal Fever	Isolation Hospital.	Scarlet Fever.	Diphtheria and Membranous Croup.	Typhoid Fever.	Continued Fever.	Erysipelas	Puerperal Fever	Small Pox.	
	Census, 1901.	Estimated to middle of 1908.																								
Kirbymoorside (58,631) T. Walsh Tetley, M.R.C.S., L.R.C.P.	4,791	4,791	22.95	11.47	0.20	81.8	...	1	...	...	...	...	...	...	...	...	...	No	25	21	1	...	2	...	...	Influenza, 1 death
Leyburn (51,202) G. Cockcroft, M.B., B.S.	6,180	6,180	19.55	12.9	0.97	115.7	...	...	3	2	...	...	...	1	...	...	...	No	1	13	2	...	3	...	...	Influenza, 3 deaths, Mumps
Malton (43,330) J. G. E. Colby, M.B., F.R.C.S., D.P.H.	6,116	5,740	26.65	16.72	0.87	117.0	...	...	3	1	...	...	...	1	...	...	...	No	8	10	4	...	4	...	...	Influenza, 1 death
Middlesbrough (11,048) H. Fawcett, M.D.	2,091	2,171	15.65	10.59	2.39	58.8	2	...	2	...	...	...	...	1	...	...	2	Yes	9	9	...	...	...	2	...	...
Northallerton (63,350) J. A. Hutchinson, M.D.	7,581	7,671	24.56	12.77	0.26	69.1	...	...	...	1	...	...	...	1	...	...	...	Yes	5	15	6	...	2	...	...	Influenza, 3 deaths, Mumps, Chicken Pox, school closure
Pickering (68,805) R. A. Scott, L.R.C.S., L.R.C.P.	6,567	6,567	25.12	14.46	0.76	151.5	...	...	...	4	...	...	...	1	...	...	...	No	6	24	...	...	3	...	...	Influenza, 1 death
Reeth (74,844) J. Campbell, L.R.C.S., L.R.C.P.	2,520	2,520	17.45	15.87	0.79	45.4	...	...	1	...	...	1	...	...	...	...	...	No	...	1	1	...	2	...	...	Influenza, 2 deaths
Richmond (76,228) H. Williams, M.R.C.S., L.R.C.P.	7,889	7,889	24.59	12.16	0.25	76.4	...	...	...	1	...	...	...	1	...	...	...	No	4	7	3	...	7	...	...	Mumps, Aldborough, Gilling, Brompton & Catterick, schools closed

RURAL AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages			Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1000 Births.	Measles.	Scarlet Fever	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox.	Enteric Fever.	Other or doubt- ful Fevers.	Diarrhoea.	Cholera.	Croup.	Erysipelas.	Puerperal Fever	Isolation Hospital.	Scarlet Fever.	Diphtheria and Membranous Croup.	Typhoid Fever.	Continued Fever.	Erysipelas.	Puerperal Fever	Small Pox.			
	Census, 1901.	Estimated to middle of 1908.																												
Scarborough (60,225) G. J. B. Candler-Hope, M.B.	...	6,498	6,448	18 14	11·63	0·15	69·5	...	...	...	...	...	...	...	...	...	...	...	...	...	Yes	12	1	...	...	1	...	...	...	Influenza, 2 deaths, Gristhorpe school closed. Chicken Pox
Startforth (97,402) J. C. Neligan, L.R.C.S., L.S.A.	...	5,014	5,277	20·08	16·48	0·75	141·5	...	...	...	3	...	1	...	...	...	...	...	...	Yes	8	1	1	...	...	1	...	...	...
Stokesley (83,010) W. M. Yeoman, M.B.	...	11,257	11,257	26·29	14·83	0·97	111·4	4	...	2	2	...	...	...	3	...	...	...	...	Yes	2	10	2	...	...	3	...	...	..	Influenza, 2 deaths Chicken Pox. Mumps
Thirsk (64,024) W. I. Buchanan, M.B.	...	12,710	12,710	22·34	14·08	1·02	112·6	...	...	2	10	...	...	...	1	...	...	...	1	No	17	16	1	...	...	11	...	...	...	Influenza, 5 deaths
Wath (16,997) T. Collier, M.R.C.S., L.R.C.P.	...	2,149	2,149	25·60	7·44	0·00	72·7	...	...	...	...	...	...	...	...	...	...	...	1	Yes	1	...	1	...	...	...	...	...	...	Influenza, 2 deaths
Whitby (89,000) J. B. Laverick, M.B., D.P.H.	...	8,051	8,600	21·04	13·95	0·23	144·0	...	1	1	...	...	...	...	...	...	...	...	...	No	18	6	1	...	...	4	...	...	...	Influenza, 2 deaths